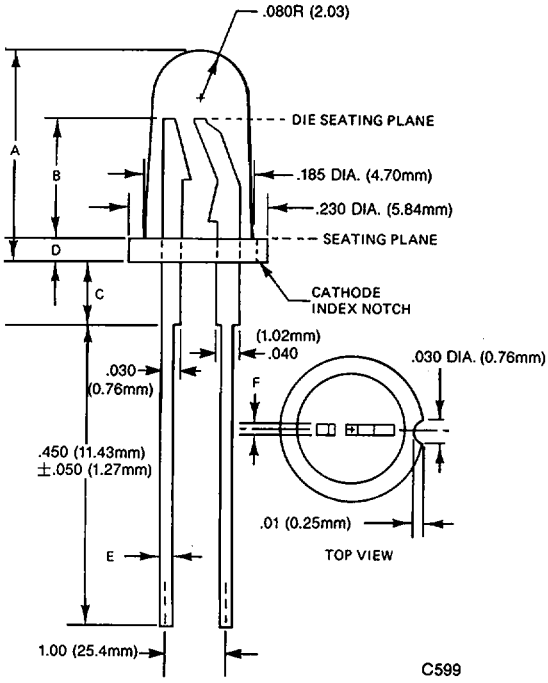
STANDARD RED MV502X

PACKAGE DIMENSIONS



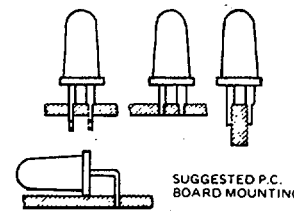
C599

DESCRIPTION

The MV502X Series of solid state indicators is made with gallium arsenide phosphide light emitting diodes. Encapsulation and lens is epoxy. Various lens effects are available for many indicator applications.

FEATURES

- Tapered barrel T-1¾
- High Intensity Red light source with various lens colors and effects
- T-1¾ with stand-off
- Versatile mounting on PC board or panel
- Snap in panel mounting clip available (See MP22 for clip detail)



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PHYSICAL CHARACTERISTICS

TYPE	A	B	C	D	E & F	SOURCE COLOR	LENS COLOR	LENS EFFECT	POP-IN MOUNTING	CIRCUIT BOARD MOUNTING
MV5021	.340	.190	.100	.040	.025	Red	Clear Diffused	Soft	X	X
MV5022	.340	.190	.100	.040	.025	Red	Transparent Red	Point	X	X
MV5023	.340	.190	.100	.040	.025	Red	Red Diffused	Soft	X	X
MV5024	.340	.160	.130	.040	.025	Red	Red Diffused	Soft	X	X
MV5025	.340	.160	.130	.040	.025	Red	Red Diffused	Flooded	X	X
MV5026	.340	.160	.130	.040	.025	Red	Dark Red Diffused	Flooded	X	X

ELECTRO-OPTICAL CHARACTERISTICS

(25°C Free Air Temperature Unless Otherwise Specified)

PARAMETER		TEST CONDITIONS	UNITS	5021	5022	5023	5024	5025	5026
Luminous Intensity	min.	I_F=20 mA	mcd	0.5	0.6	0.4	0.9	0.1	0.1
(See Note 1)	typ.	I_F=20 mA	mcd	1.6	1.6	1.6	3.0	0.4	0.6
Peak wavelength		I_F=20 mA	nm	660	660	660	660	660	660
Spectral line half width		I_F=20 mA	nm	20	20	20	20	20	20
Forward voltage	typ.	I_F=20 mA	V	1.65	1.65	1.65	1.65	1.65	1.65
V_F	max.	I_F=20 mA	V	2.0	2.0	2.0	2.0	2.0	2.0
Reverse current I_R	max.	V_R=5.0V	μA	100	100	100	100	100	100
Reverse voltage V_R	min.	I_R=100 μA	V	5.0	5.0	5.0	5.0	5.0	5.0
Capacitance	typ.	V=0	pF	35	35	35	35	35	35
Viewing angle		Between 50% Points	degrees	90	90	90	60	180	90
Rise time		10%-90% 50 Ω system	nsec	50	50	50	50	50	50
and fall time	typ.	90%-10% 50 Ω system	nsec	50	50	50	50	50	50

ABSOLUTE MAXIMUM RATINGS

Power dissipation at 25°C ambient	180 mW
Derate linearly from 25°C	2 mW/°C
Storage and operating temperatures	−55°C to +100°C
Lead soldering time at 260°C (See Note 2)	5 sec.
Continuous forward current at 25°C	100 mA
Peak forward current (1μsec pulse, 0.3% duty cycle)	1.0 A
Reverse voltage	5.0 V

NOTES

1. *As measured with a Photo Research Corp., "SPECTRA" Microcandela Meter (Model IV-D).*
2. *The leads of the device were immersed in molten solder at 260°C to a point 1/16 inch (1.6 mm) from the body of the device per MIL-S-750, with a dwell time of 5 seconds.*

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

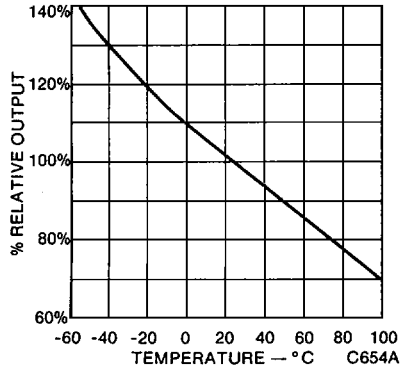

Fig. 1. Output vs. Temperature

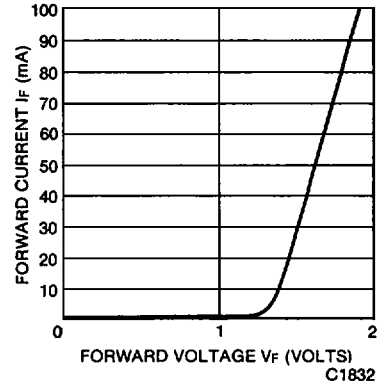

Fig. 2. Forward Current vs. Forward Voltage

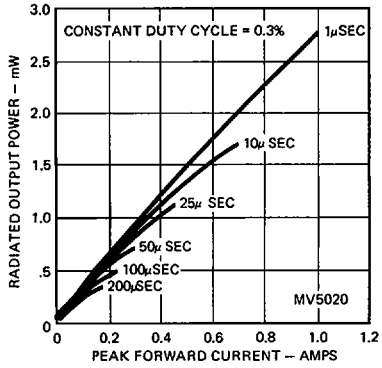

Fig. 3. Radiated Output Power vs. Peak Forward Current

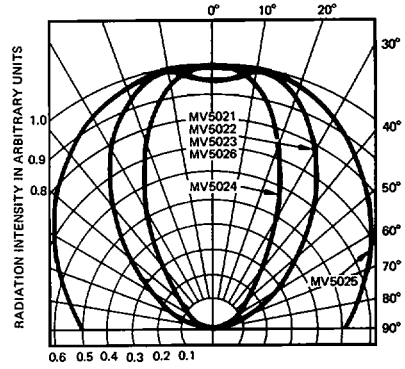

Fig. 4. Spatial Distribution

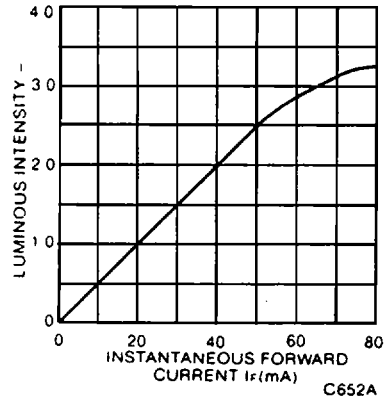

Fig. 5. Luminous Intensity vs. Forward Current